



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,456	03/04/2004	Michael B. Radel	R 0301	2455

26092 7590 04/20/2005

KYLE W. ROST
5490 AUTUMN CT.
GREENWOOD VILLAGE, CO 80111

EXAMINER

LUGO, CARLOS

ART UNIT PAPER NUMBER

3676

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/708,456	Applicant(s) RADEL, MICHAEL B.	
	Examiner Carlos Lugo	Art Unit 3676	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-10 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The specification is objected to because of the following informalities:

- Paragraph 23 Line 15, change "plunger head 16" to -plunger head 52-.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1-4 and 8-10 are rejected** under 35 U.S.C. 102(b) as being anticipated by US Pat No 4,746,152 to Willcox.

Regarding claims 1 and 9, Willcox discloses a latch assembly formed of a bolt housing (12), a longitudinally elongated latch bar (32) partially retained within a passageway (52) of the bolt housing and longitudinally extendable therefrom, and a keeper (14) having a reception passage (68) for receiving an extending free end of the latch bar (at 36). The free end of the latch bar is extendable from the bolt housing into the keeper, thereby establishing a latching relationship with the keeper.

The free end of the latch bar is configured with a cavity (40) on a lateral face thereof. The keeper carries a cross-latch (34) in a transversely moveable relationship with respect to the reception passage between positions of greater and lesser intersection with the reception passage.

The assembly further comprises resilient means (74) that biases the cross-latch toward a position of greater intersection with the reception passage.

An operator (18 and 46) is connected to the cross-latch for selectively retracting the cross-latch against the force of the resilient means to a position of lesser intersection with the reception passage.

The cavity (40) and the cross-latch (34) are suitably arranged such that the cross-latch and cavity are mutually engaged when the cross-latch is in the position of greater intersection with the reception passage and the free end of the latch bar has been sufficiently inserted into the reception passage, thereby locking the latch bar to the keeper.

The cross-latch and cavity are mutually disengaged when the cross-latch is in the position of lesser intersection with the reception passage, allowing the latch bar to be inserted into or removed from the reception passage.

As to claim 2, Willcox discloses that the latch bar (32) is forked from the free end of the latch bar to a junction with the cavity, thereby defining a longitudinal slot extending from the free end of the latch bar and leading into the bolt cavity.

The cavity is a transverse passage through the latch bar of a dimension wider than the width of the slot at its junction with the cavity.

The cross-latch (34) is sized to be retained from exiting the cavity into the slot when the cross-latch and cavity are mutually engaged.

The operator (18) traverses the reception passage when the cross-latch is in the position of lesser intersection and the operator and the slot are relatively sized such that the operator can be received through the slot and into the cavity.

When the cross latch is in the position of lesser intersection with the reception passage the latch bar is able to enter the reception passage, receive the operator through the slot, and receive the operator into the cavity.

As to claim 3, Willcox discloses that the assembly further comprises a stop (the periphery of 56), operating between the keeper and the latch bar and limiting the entry of the latch bar into the reception passage to a position where the cavity is aligned to receive the cross-latch, when the cross-latch is in the position of lesser intersection with the reception passage.

As to claim 4, Willcox discloses that the latch bar (32) is configured as a plate of rectangular transverse profile and the reception passage is configured with a matching rectangular profile for receiving the latch bar, such that the latch bar is substantially non-rotatable with respect to the reception passage and relative movement between the latch bar and the reception passage is substantially along a single longitudinal axis, whereby, moving the latch bar along a single longitudinal axis establishes alignment between the cavity with the cross-latch.

As to claim 8, Willcox discloses that the keeper defines a bore (72) arranged on a transverse axis to the longitudinal reception passage, wherein the bore is of dual width, having a relatively greater width on one reception passage (at 72) and having

a relative lesser width on the opposite side of the longitudinal reception passage (in the middle of plate 70).

The cross-latch comprises a plunger head (48) of width similar to the greater bore width, carried in the portion of the bore of greater width, and the operator comprises a shaft (46) of width similar to the lesser bore width, carried in the portion of the bore of lesser width.

As to claim 10, Willcox discloses that the cross-latch comprises a plunger (48) having a relatively broader head connected to a relatively narrower shank (46).

A resilient means (74) biases the plunger into a position wherein the plunger head at least partially enters the longitudinal reception passage into a position of interference with longitudinal movement of the latch bolt in the longitudinal reception passage.

The shank extends from the keeper sufficiently to enable manual manipulation of the shank to displace the plunger head from the position of interference with movement of the latch bolt.

The extendable end of the latch bolt is forked and defines a longitudinal entranceway sized to pass the shank and block the plunger head.

The shank and the plunger head are interconnected and carried in the keeper with respect to the resilient means such that the shank crosses the longitudinal reception passage in a position receivable in the entranceway when the shank has displaced the plunger head from the position of interference with movement of the latch bolt.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 5 and 6 are rejected** under 35 U.S.C. 103(a) as being unpatentable over US Pat No 4,746,152 to Willcox as applied to claims 1-4 above, and further in view of US Pat No 4,744,392 to Tade et al (Tade).

As to claims 5 and 6, Willcox fails to disclose that the latch bar carries a longitudinal rib of predetermined height on a major face thereof and a matching channel in the keeper extends parallel to the reception passage and receives the rib.

Tade teaches that it is well known in the art to have a latch (43) carrying a rib (45) and that the keeper (at 14) has a matching channel (46 and 48) so as to enable the rib to enter the keeper.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate a rib and a matching channel, as taught by Tade, into the device as described by Willcox, in order to guide the latch bar into the keeper.

Allowable Subject Matter

6. **Claim 7 is objected** to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reasons For Allowable Subject Matter

7. The following is an examiner's statement of reasons for allowable subject matter:

Claim 7 presents allowable subject matter over the prior art of record because the teachings of the references taken as a whole do not teach or render obvious the combination set forth, including that the rib carries a stop extending from the rib.

Willcox, as modified by Tade, fails to disclose that the rib (45) carries a stop to prevent the latch bar from movement. Willcox only discloses one stop (the periphery of the slot 56 in combination with the pin 38). Tade rib itself is the stop, not another member extending from the rib 45.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lugo whose telephone number is 571-272-7058. The examiner can normally be reached on 10-7pm EST.

Art Unit: 3676

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Stodola can be reached on 571-272-7087. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C.L.

Carlos Lugo
Examiner
Art Unit 3676

April 6, 2005



DANIEL P. STODOLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600